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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/821,368

04/09/2004

Yukio Miyaki

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02/24/2010

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EXAMINER

WANG, EUGENIA

ART UNIT

PAPER NUMBER

1795

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<p align="center">Advisory Action Before the Filing of an Appeal Brief</p>	<p>Application No. 10/821,368</p>	<p>Applicant(s) MIYAKI ET AL.</p>	
	<p>Examiner EUGENIA WANG</p>	<p>Art Unit 1795</p>	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 17 February 2010 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ They raise the issue of new matter (see NOTE below);
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☒ Applicant's reply has overcome the following rejection(s): Only the CLAIM OBJECTION with respect to claim 1.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
The status of the claim(s) is (or will be) as follows:
Claim(s) allowed: _____.
Claim(s) objected to: _____.
Claim(s) rejected: 1, 3, and 4.
Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See Continuation Sheet.
12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). _____
13. ☐ Other: _____.

/PATRICK RYAN/
Supervisory Patent Examiner, Art Unit 1795

Continuation of 11. does NOT place the application in condition for allowance because: Applicant argues that Examiner's position is that even though Fujimoto et al. does not disclose the specific capacity range required by the claims (outer to inner active material layer between 0.6 to 0.8 inclusive) that such a ratio would be obvious.

Examiner respectfully disagrees. It appears that Applicant has misinterpreted the rejection of record. It is noted that the claimed ratio is interpreted in two manner - (a) to be taught by Fujimoto et al. (paragraph bridging p5-6) or (b) alternately to be obvious over Fujimoto et al. (paragraph bridging p6-7).

Such positions are reiterated below for clarity's sake:

With respect to (a): "Furthermore, it is listed that the thickness of electrode material mixture on the inner side of the collector is from 60% to 97%, more preferably 70% to 95%, of the outer collector. The difference in thickness inherently provides a difference in capacity, as the thicker layer contains more active material, and thus has more capacity. In Fujimoto's teaching, the ratio ranges of capacity of the outer active material to the inner active material would be from 1:0.6 to 1:0.97, inclusive, more preferably 1:0.7 to 1:0.95, inclusive. A portion of Fujimoto et al.'s range covers the claimed ratio, and therefore would inherently provide the same claimed ratio difference."

With respect to (b): "Alternately, it can be said that Fujimoto et al. do not disclose the specific capacity ratio of the outer anode active material to the inner active anode material that is from 1:0.6 to 1:0.8, inclusive. However, it has been held that when the difference between a claimed invention and the prior art is the range or value of a particular variable, then a prima facie rejection is properly established when the difference in the range or value is minor. *Titanium Metals Corp. of Am. v. Banner*, 778 F.2d 775, 783, 227 USPQ 773, 779 (Fed. Cir. 1985). Generally, differences in ranges will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such ranges is critical. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). *In re Hoeschele*, 406 F.2d 1403, 160 USPQ 809 (CCPA 1969). Claims that differ from the prior art only by slightly different (non-overlapping) ranges are prima facie obvious without a showing that the claimed range achieves unexpected results relative to the prior art. (*In re Woodruff*, 16 USPQ2d 1935, 1937 (Fed. Cir. 1990)). Selection of optimum ranges within the prior art's general condition is obvious. (*In re Aller*, 105 USPQ 233 (CCPA 1955))."

Accordingly, it is submitted that the rejection of record has drawn a relationship between the thickness of the active material to the capacity of the active material (the thicker the active material, the more the active material, the higher the capacity). Accordingly it is submitted that the appreciation of different thicknesses is likened to that of the capacity ratio, wherein a thickness ratio 1:0.6 to 1:0.97 is appreciated, wherein a portion of such a ration overlaps the claimed range (and alternately if it is shown that it does not, such a difference would be obvious, as set forth above, not reiterated herein for brevity's sake). Thus such arguments are not found to be convincing, and the rejection of record is maintained.

Applicant argues that several factors can determine battery capacity (noting grain diameter of the active material and density). Applicant proceeds to argue that Fujimoto et al. varies the thickness of the electrode material (p3, lines 5-15) for achieving improved charge/discharge cycle characteristics, concluding that Fujimoto et al. does not teach/suggest a capacity ratio between the outer and inner active material layers.

Examiner respectfully disagrees. It is first noted that although many factors determine battery capacity, it does not constitute a teaching that any individual factors do not affect battery capacity. As set forth above, the thickness of the electrode material is indicative of the ratio of electrode material (as the thicker the material is, the more material it is, the higher the capacity). Accordingly, it is submitted that Applicant's statement actually supports the fact Fujimoto et al. does teach or at the very least suggest a capacity ratio between the outer and inner electrodes by teaching a ratio of thickness. (Position set forth above and within the last rejection of record.) Furthermore, Applicant's own statement as to what Fujimoto et al. teaches supports the fact the thicknesses of the electrode material from the inner and outer sides (and thus the amount on each side, thus a ratio of those amounts) is a result effective variable. Wherein the thicknesses, amounts, and thus the ratio would affect charge/discharge capacity. It would have been obvious to one having ordinary skill in the art at the time the invention was made to optimize the thicknesses of the amounts of electrode material on the outside and the inside of the current collector (i.e. the amount of active material, which affects capacity on each side, providing a ratio of amounts and capacity), since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). It has been held that discovering that general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233. Generally, differences in ranges will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such ranges is critical. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). *In re Hoeschele*, 406 F.2d 1403, 160 USPQ 809 (CCPA 1969). Thus such arguments are not found to be convincing, and the rejection of record is maintained.